6.4 Ear health

6.4.1 Irrigation ear toilet (ear syringe)

Aim

To clean the ear canal, including removal of foreign objects, pus/debris or softened wax.

Key points

1. To be performed only by staff with appropriate training and assessment skills.
2. Otoscopy should always be conducted first, and in the event of any pain during this procedure.¹
3. All irrigating solution must be warmed to 37°C prior to the procedure.
4. Ear irrigation should not be performed under the following circumstances:
   - if the child is experiencing pain of the middle or external ear
   - in the case of recent ear trauma
   - in the case of dry perforation - water can go through the perforation and initiate infection in the middle ear. It should be noted that if the middle ear is already infected and discharging pus, then gentle syringing can be used to remove the pus, although tissue spearing, or suctioning where available is preferred ², ³
   - where there is history of acute otitis media (AOM), within the past 6 weeks. In the case of AOM, tissue spearing should be conducted in preference to ear irrigation¹
   - following ear surgery, with the exception of grommets which have extruded 18 months previously ⁴
   - where the child is uncooperative.
5. Ear wax serves important functions of protection, lubrication and antibacterial action.⁴ It should only be removed as a last resort if impacted, affecting hearing or impeding adequate visualisation of the ear canal.
6. Foreign objects:
   - Forceps should never be used to remove foreign objects from the ear canal.
   - Live insects should be drowned by instilling a few drops of oil into the ear canal. However, further consultation should be sought where perforation is suspected.
   - Foreign items such as cotton buds, seeds, or other vegetable matter which may absorb water, should not be irrigated, as they may swell and become more difficult to remove.³
If a foreign object is not easily removed using syringing, then the child should be referred for specialist follow-up.

7. Community Health staff should follow the organisation’s overarching infection prevention and management policies and perform hand hygiene in accordance with WA Health guidelines at all appropriate stages of the procedure.

**Equipment**

- Otoscope
- Disposable otoscope tips - the largest size that will comfortably fit in the ear canal
- Irrigation solution as indicated/recommended
- 20ml syringe, pipette or eye dropper
- Plastic tubing from a scalp vein needle, needle removed
- Kidney dish or other receptacle
- Small absorbent towel
- Tissues and tissue spears

**Procedure**

<table>
<thead>
<tr>
<th>Steps</th>
<th>Additional information</th>
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<tbody>
<tr>
<td>1. Explain the procedure to the parent/carer and the child. Allow sufficient time for discussion of parent concerns. Obtain verbal consent to proceed.</td>
<td>Encourage parent/carer support and involvement with the procedure where possible.</td>
</tr>
<tr>
<td>2. Position the child comfortably in the lateral position, or supine with the head turned to one side.</td>
<td>Babies and toddlers must be held firmly to prevent unexpected movement. This may include wrapping. Ask the parent/carer to hold the child’s head firmly against their chest and use their other arm to secure the child’s arms and body to stop any sudden movement. Older children may prefer to stand or be seated.</td>
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### Procedure: Birth to School Entry

#### School aged children

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<tr>
<td>3. Pull the back of the pinna gently away from the head to straighten the ear canal. For older children, pull pinna back and up. For infants, pull pinna back and down.</td>
<td>This will straighten the ear canal and promote good visibility. The least affected ear should be examined first.</td>
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<tr>
<td>4. Inspect the ear canal using the otoscope. Refer to procedure 6.3.1 Otoscopic examination for more information.</td>
<td>It is important to brace the hand holding the instrument against the child’s head to prevent ear trauma in the event of a sudden movement.¹</td>
</tr>
<tr>
<td>5. Place the towel over the child’s shoulder.</td>
<td>Recommended solutions for short acting wax softening action include water, water with detergent (soapy water), or a 5% sodium bicarbonate solution.³</td>
</tr>
<tr>
<td>6. Wax should be softened prior to removal by irrigation.</td>
<td>Oil or water-based wax softening drops are also available, but may require instillation over several days for effect. Refer to procedure 6.4.3 for guidance on instillation of drops.</td>
</tr>
<tr>
<td>o Fill the ear canal with pre-warmed soapy water or bicarbonate solution.</td>
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<tr>
<td>o Press the tragus repeatedly to squeeze the water into the ear canal.</td>
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<tr>
<td>o After 20 minutes proceed to ear irrigation.</td>
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<tr>
<td>The above process may be repeated if the wax is not sufficiently softened.</td>
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<tr>
<td>7. Place the kidney dish under the pinna to collect solution as it drains out of the ear.</td>
<td>Parent or child may assist by holding the kidney dish.</td>
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## 6.4 Ear health

### Irrigation ear toilet

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| 8. **Irrigation process:**  
  - Fill the syringe with pre-warmed solution, connect the cannula tubing, and gently position the tip of the tubing inside the ear canal.  
  - Water or Normal Saline solution is preferred.  
  - Povidine Iodine 0.5% (1 part Povidine Iodine 10% diluted in 20 parts normal saline or water for irrigation) may be indicated if an antiseptic agent is required, particularly in cases of Chronic suppurative Otitis Media (CSOM).  
  - Ensure air is removed from the syringe and tubing prior to placement into ear.  
  - Use the child’s cheek bone as a support to stabilise hands and equipment.  
  - Pipette or eye dropper may be used as an alternative for very young children.  
  - Povidine iodine is a broad spectrum, resistance-free biocidal agent which can kill a range of micro-organisms including bacteria, viruses, yeasts, moulds, fungi, and protozoa. Its topical use has been evidenced to facilitate significant improvement in CSOM with no ototoxic or allergic effects.  |
| 9. Gently instil solution into the ear canal. | Ensure the tubing is directed up and back towards the roof of the ear canal, not towards the tympanic membrane.  
  - Use smooth, firm pressure on the syringe plunger. It will spiral around the canal and gradually flush out any debris.  |
| 10. Repeat steps 8 and 9 until the solution removed are clear, checking the canal at least after every 5 syringes of solution. | If the angle used is ineffective, it may be changed so the tip aims towards the wall of the ear canal, gently and with caution.  
  - Never aim towards the tympanic membrane.  |
| 11. Gently mop the creases of the external ear with a tissue. | Refer to procedure 6.4.4 within this manual for use of tissue spears.  
  - Cotton buds should never be used to clean ear canals.  |
| 12. Carefully dry the ear canal using tissue spears. |  |

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### Ear health

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<td>13. Re-inspect the ear using the otoscope with a clean tip.</td>
<td>After syringing the tympanic membrane often looks pink and blood vessels are dilated.(^1)</td>
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<tr>
<td>14. Instil ear drops as indicated and/or prescribed.</td>
<td>Refer to procedure 6.4.3 within this manual for guidelines on installation of ear drops.</td>
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<tr>
<td>15. Repeat procedure for other ear as required.</td>
<td>Wait for at least 2 - 5 minutes following instillation of drops prior to repositioning child to other side.(^1)</td>
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<td>16. Provide opportunistic ear health education for parents/carers and the child.</td>
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### Referral pathway

Discuss any abnormal findings with the parent / carer and seek verbal consent for referral to a medical practitioner using the CHS 663- Referral from Community Health form.

### Related policies, procedures and guidelines

- **Section 1.11 Infection control**
- **3.7.3 Hearing (Including management of common ear problems)**
- **6.3.1 Otoscopic examination**
- **6.4.3 Instillation of ear drops**
- **6.4.4 Technique for tissue spearing**

Staff should also refer to any service specific policies where applicable.

### Useful resources


Continued over page.
Community Health Manual
Procedure
Birth to School Entry
School aged children

Paediatric Nursing Practice Manual; Princess Margaret Hospital.

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<td>Director - Statewide Policy Unit.</td>
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References


